

IN THE CLAIMS:

1-65. (canceled)

16. (previously presented) An *H. pylori* bacterial strain, or an extract of an *H. pylori* bacterial strain, wherein the *H. pylori* bacterial strain has an aflagellate phenotype resulting from a mutation in the *fibA* gene of the *H. pylori* bacterial strain.

26. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 16, wherein the *fibA* gene is able to hybridize, under conditions of stringency, with a probe corresponding to a nucleotide fragment from *H. pylori*, which has been amplified using two oligonucleotides having the following sequences:

OLF1bA-1: ATGCCTCGAGGTCGAAAAGCAAGATG (SEQ ID NO:1),

OLF1bA-2: GAAATCTTCATACTGGCAGCTCCAGTC (SEQ ID NO:2).

36. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 16, wherein the *fibA* gene comprises SEQ ID NO: 6.

46. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 16, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

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70. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim *66*, wherein the *H. pylori* bacterial strain also lacks the flagellum sheath.

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71. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim *70*, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

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72. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim *66*, wherein the *H. pylori* bacterial strain is obtained from strain N6 having deposit Accession No. NCIMB 40512.

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73. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim *66*, wherein the *H. pylori* bacterial strain is strain N6flbA⁻ having deposit Accession No. NCIMB 40747.

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74. (previously presented) The extract of an *H. pylori* bacterial strain according to claim *68*, wherein the bacterial extract is a total bacterial extract.

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75. (previously presented) The extract of an *H. pylori* bacterial strain according to claim *66*, wherein the bacterial extract is a n-octyl glucoside extract.

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11 26. (previously presented) The extract of an *H. pylori* bacterial strain according to claim 68, wherein the bacterial extract is obtained after extracting with PBS or glycine.

12 27. (previously presented) An *H. pylori* bacterial strain, or an extract of an *H. pylori* bacterial strain, wherein the *H. pylori* bacterial strain has an aflagellate phenotype resulting from a mutation in the *flbA* gene of the *H. pylori* bacterial strain, and wherein the *H. pylori* bacterial strain does not express the FlaA and FlaB proteins.

13 28. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 12, wherein the *flbA* gene is able to hybridize, under conditions of stringency, with a probe corresponding to a nucleotide fragment from *H. pylori*, which has been amplified using two oligonucleotides having the following sequences:

OLF1bA-1: ATGCCTCGAGGTCGAAAAGCAAGATG (SEQ ID NO:1),

OLF1bA-2: GAAATCTTCATACTGGCAGCTCCAGTC (SEQ ID NO:2).

14 29. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 12, wherein the *flbA* gene comprises SEQ ID NO: 6.

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80. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 17, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

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81. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 17, wherein the *H. pylori* bacterial strain also lacks the flagellum sheath.

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82. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 81, wherein the *H. pylori* bacterial strain does not express the hook protein (or anchoring protein) of the flagellum of *H. pylori*.

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83. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 17, wherein the *H. pylori* bacterial strain is obtained from strain N6 having deposit Accession No. NCIMB 40512.

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84. (previously presented) The *H. pylori* bacterial strain, or extract of an *H. pylori* bacterial strain, according to claim 17, wherein the *H. pylori* bacterial strain is strain N6flbA⁻ having deposit Accession No. NCIMB 40747.

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85. (previously presented) The extract of an *H. pylori* bacterial strain according to claim 17, wherein the bacterial extract is a total bacterial extract.

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86. (previously presented) The extract of an *H. pylori* bacterial strain
according to claim 27, wherein the bacterial extract is a n-octyl glucoside extract.

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87. (previously presented) The extract of an *H. pylori* bacterial strain
according to claim 27, wherein the bacterial extract is obtained after extracting with PBS
or glycine.

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